

## ABSTRACT

The invention relates to a method for the automated production and iterative automated optimization of a substance library and/or at least one reaction parameter relating to a performance characteristic comprising at least two substances comprising the steps of: a) defining at least one production parameter and at least one test parameter; b) automated preparation of a substance library by producing at least two substances on the basis of the at least one production parameter; c) automated testing of the at least two substances of the substance library with respect to at least one performance characteristic on the basis of the at least one test parameter; d) evaluating the test using electronic data analysis; e) varying the at least one production parameter and/or the at least one test parameter for optimizing the performance characteristics, and single or repeated repetition of steps b) to e) or c) to e); characterized in that the steps b) to e) are carried out in an integrated automated process.